# UNDERSTANDING ARTHROSCOPY



Looking into Your Ankle, Knee, Wrist, Elbow, or Shoulder

## What Is Arthroscopy?

Whether you're taking a step or raising your hand, your joints help you move freely. But living with a worn or injured joint can make an active lifestyle painful. Your orthopaedic surgeon has suggested **arthroscopy** to look inside your problem joint. To learn more, read this booklet. It will help you prepare for surgery and the recovery time that will follow. After arthroscopy, you may be able to return to many of the activities you once enjoyed.

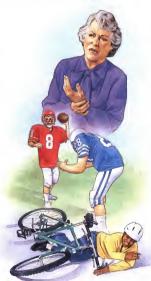
## Arthroscopy and Your Injury

Arthroscopy can be used to diagnose or treat your joint problem. A problem may be **chronic** (ongoing) or **acute** (sudden). Constant use of a joint over time can lead to chronic problems. An acute injury can result from a sudden fall, blow, or twisting motion.

## Why Arthroscopy?

Arthroscopy is often a good way to do joint surgery. Why? Because:

- The surgeon can often find and treat the problem during one procedure.
- The surgeon can often see the joint better than with open surgery.
- Smaller incisions are used than with open surgery. As a result, you may recover faster and have less scarring.



This booklet is not intended as a substitute for professional medical care.

Only your doctor can diagnose and treat a medical problem.

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## **How Arthroscopy Works**

To look inside your joint, your surgeon will use an **arthroscope**. This is a slender instrument that contains a lens and a light source. The arthroscope and other special tools are inserted into the joint through **portals** (tiny incisions). Using a camera, the arthroscope sends an image of your joint to a **monitor** (TV screen). This lets your surgeon see your joint more clearly.



Table of Contents	Page
Your Evaluation	4
Before Your Arthroscopy	5
Ankle	6
Knee	8
Wrist	10
Elbow	12
Shoulder	14
Surgical Checklist Back	Cover

You probably can return to most of your normal activities after recovering from arthroscopy.

## Your Evaluation

Your plans for arthroscopy will begin with a visit to your surgeon. At this time, you may need to answer questions about your joint problem. Your surgeon will check your joint and may order special tests. This process will help your surgeon learn more about your joint problem and plan treatment.

## **Health History**

You may need to provide details about your family's health history. Also, be sure to mention all the medications you take. You are likely to be asked:

- · When and how your injury occurred
- · Which activities affect your pain
- · What treatments you have tried so far

## **Checking Your Joint**

Your joint will be checked for signs of injury. These signs include swelling, tenderness, decreased range of motion, clicking or catching, and weakness.

## Diagnostic Imaging Tests

Imaging tests may be done to assess your joint. Such tests include:

- X-ray, which can reveal abnormal bone structures, such as bone spurs.
- MRI (magnetic resonance imaging), which can show damage to soft tissues.
- CT (computed tomography), which uses a computer and x-rays to show changes in soft tissues and bones.



Your surgeon will check your joint for signs of injury.



MRI can reveal soft-tissue injuries.

## Before Your Arthroscopy

The medical staff will help you prepare for arthroscopy. They may ask for the results of any recent checkup or special tests. You will be told how to prepare at home for surgery. Someone will also talk with you about the type of anesthesia to be used. Finally, you will learn whether you should plan to spend the night at the hospital.

## **Getting Ready at Home**

At home before surgery:

- Don't eat or drink after the midnight before surgery. This includes coffee.
- Ask in advance if you can take any daily medication the day of surgery.
- Stop taking anti-inflammatory medicine, such as aspirin, 7 to 10 days before surgery.
- If you smoke, now is the time to stop.
- Arrange for a ride home after surgery.

## Planning for Anesthesia

Before surgery, you will be told about the type of anesthesia that will keep you free of pain during arthroscopy. **General anesthesia** lets you sleep through surgery. **Regional** and **local anesthesia** numb only part of your body. They may be given with drugs that will help you relax.





## Risks of Arthroscopy

As with any surgery, arthroscopy involves some risks. These are rare, but include:

- · Excess bleeding
- · Blood clots
- Infection
- · Instrument failure in surgery
- Damage to nerves and blood vessels
- A shift to open surgery that would require a larger incision

## Arthroscopy of the Ankle

Arthroscopy is used to find and treat many types of ankle problems. These include loose bodies, bone spurs, and osteochondritis dissecans (OCD).

## The Healthy Ankle

The ankle is a strong, mobile joint. It takes its shape from the lower leg bones (fibula and tibia) and one of the foot bones (talus). These bones support the body's weight. They also keep the joint stable. Cartilage covers the ends of the bones and aids in movement.

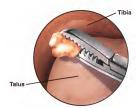
#### Right Ankle



#### Common Ankle Problems

#### Loose Bodies

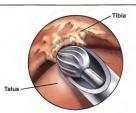
Loose bodies are bone or cartilage fragments that have chipped off inside the joint. If left in place, they can damage the joint surface and restrict ankle movement. Your surgeon can remove loose bodies from the joint. This will help restore normal, smooth ankle motion.



A loose body is removed.

#### Bone Spurs

When the bones in a joint pinch each other, they are **impinged**. This problem is often caused by **bone spurs** (growths) that have formed on the joint. Pressure from the spur may cause pain when you move your ankle. Your surgeon will remove the spur and smooth the bone surface.

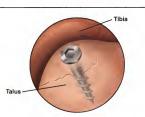


After a bone spur is removed, the surface of the bone is smoothed.

#### OCD

Because of an injury to its blood supply, a piece of bone can become loose inside the joint. Called OCD (osteochondritis dissecans), this problem can cause pain and swelling. The surgeon can remove the bone or secure it in place.

Open surgery may also be needed.



The affected piece of bone is secured in place.

#### After Arthroscopy

At home, follow your surgeon's guidelines for healing:

- · Elevate and ice your ankle.
- Use a bandage to compress your ankle.
- When you shower, cover your ankle with plastic to keep it dry.
- · Take pain medication as directed.

#### The Road to Recovery

After surgery, your joint may be swollen, painful, and stiff. Recovery times can vary. Your surgeon will tell you when to resume activity. If you had a loose body, bone spur, or OCD removed, you may be able to bear weight when the pain is gone. With a secured OCD, you may need to wear a surgical boot or cast and use crutches for some time.



You may be told to write the alphabet with your foot daily to keep your ankle flexible.

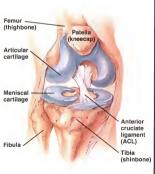
## Arthroscopy of the Knee

Arthroscopy is used to find and treat many types of knee problems. These include tears in the meniscal cartilage or anterior cruciate ligament (ACL), and arthritis.

## The Healthy Knee

The knee is a mobile joint that connects the upper and lower leg bones. Articular cartilage covers the ends of the bones and the underside of the patella (kneecap) to aid in movement. Meniscal cartilage acts as a cushion between the bones. The ACL is one of several ligaments that help keep the knee stable.

#### Right Knee



#### Common Knee Problems

#### Meniscal Cartilage Tears

There are several types of meniscal cartilage tears. Your surgery will depend on the type and extent of your injury. Your surgeon can remove the damaged tissue or fix the tear. Treatment should ease the pain and swelling. It can also help keep the joint from locking.



A portion of damaged meniscal cartilage is removed.

#### ACL Tears

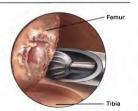
A torn ACL (anterior cruciate ligament) can make the knee unstable. You may have pain and swelling, and your knee may give out. Your surgeon can repair the ACL with stitches or rebuild it. To rebuild your ACL, damaged tissue may be replaced with a graft of healthy tissue from an area near your knee, or from a donor.



A graft of strong, healthy tissue is attached to replace damaged tissue.

#### Arthritis

Constant use of the knee over time can cause arthritis. This is when the articular cartilage wears away and roughens. Bone or cartilage fragments can also break off inside the joint (loose bodies). Either problem can limit movement and cause pain. Your surgeon will use a burr or shaver to smooth the joint surface. This will aid in healing. Loose bodies will also be removed.



Areas where cartilage has worn away are smoothed.

## After Arthroscopy

At home, follow your surgeon's guidelines for healing:

- · Elevate and ice your knee.
- Keep your knee bandaged.
- When you shower, wrap your knee with plastic to keep it dry.
- Take pain medication as directed.

#### The Road to Recovery

After surgery, your joint may be swollen, painful, and stiff. Your recovery time will depend on what was done. Your surgeon will tell you when to resume activity and weight bearing. If you had meniscal cartilage or loose bodies removed, you may be told to bear weight early on. After ACL repair, do not pivot or make sudden moves.



You may be told to ride an exercise bike daily. This will help restore your knee's flexibility and strength

## Arthroscopy of the Wrist

Wrist arthroscopy is used mostly for diagnosis. In some cases, it is used in treatment. It works best for showing ligament tears, or damage to the triangular fibrocartilage complex (TFCC) or cartilage. Since the wrist is a very small joint, the surgeon uses a special arthroscope.

## The Healthy Wrist

The wrist is a mobile joint that can move up and down, and from side to side. It can also rotate. Its many small bones, bound to one another by **ligaments**, allow such movement. The TFCC cushions and supports the joint.



#### Common Wrist Problems

#### Ligament Tears

The ligaments between the bones of the wrist can tear. This most often occurs between the lunate and scaphoid bones or the lunate and triquetrum bones. Such tears can cause pain, swelling, and a weak grip. With a full tear, the bones may pull apart and limit motion. To perform repairs, your surgeon may shift to open surgery.



Ligament damage is revealed

#### TFCC Damage

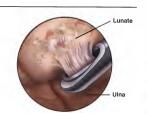
Injury or constant use over time can cause a tear in the TFCC (triangular fibrocartilage complex). During surgery, the tear may be shaved off or repaired. Bone or cartilage fragments may be removed. After healing, you should be able to move your wrist with greater ease and less pain.



The TFCC is repaired.

### Cartilage Damage

If you have wearing down of the cartilage (arthritis), your surgeon will shave off or smooth the worn area. Bone or cartilage fragments that have chipped off in the joint (loose bodies) will be removed. The removal of loose bodies can help restore smooth, pain-free wrist movement.



Rough cartilage is shaved off.

## After Arthroscopy

At home, follow your surgeon's guidelines for healing:

- Elevate and ice your wrist to reduce swelling.
- Wear your wrist dressing to let the joint heal.
- When you shower, cover your wrist with plastic to keep it dry.
- · Take pain medication as directed.

#### The Road to Recovery

After surgery, your joint may be swollen, painful, and stiff. Recovery times vary, depending on what was done. Your surgeon will tell you when to resume activity. Avoid gripping objects tightly or lifting. You may wear a bandage, splint, or cast for some time.



You may be told to practice opening and closing your fingers a few times each day.

## Arthroscopy of the Elbow

Arthroscopy is used to find and treat many types of elbow problems. These include loose bodies, bone spurs, and osteochondritis dissecans (OCD).

## The Healthy Elbow

The elbow plays two roles: It lets the arm bend and straighten, and it allows the palm to turn up and down. This joint connects the two forearm bones (ulna and radius) with the upper arm bone (humerus). Inside the joint, cartilage covering the bones keeps the elbow moving smoothly.

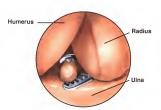
### Right Elbow



#### Common Elbow Problems

#### Loose Bodies

Loose bodies are bone or cartilage fragments that have broken loose inside the joint. Left in place, they can cause pain. Your elbow may catch, or become hard to bend and straighten. Loose bodies can be removed with arthroscopy. This will help restore normal, pain-free arm movement.



A loose body is removed from the elbow joint.

#### **Bone Spurs**

Bone spurs (growths) in a joint can cause the bones to pinch one another (impinge). These growths can cause pain and restrict movement. The ulna is the most common site for bone spurs in the elbow. To treat your problem, the surgeon will remove the spur and smooth the bone surface.

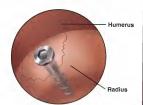


A bone spur is removed from the elbow joint.

#### OCD

Inside a joint, a piece of bone can become loose because of an injury to its blood supply. Called OCD (osteochondritis dissecans), this problem can cause pain and swelling. The surgeon can remove the bone or secure it in place.

Open surgery may also be needed.



The affected piece of bone is secured in place.

## **After Arthroscopy**

At home, follow your surgeon's guidelines for healing:

- Elevate and ice your elbow to reduce swelling.
- Keep your elbow compressed in a sling, bandage, or splint.
- When you shower, cover your elbow with plastic to keep it dry.
- Take pain medication as directed.

#### The Road to Recovery

After surgery, your joint may be swollen, painful, and stiff. Recovery times vary, depending on what was done. With bone removal, you may be told to bend and straighten your arm soon after surgery. This will help restore normal movement. With OCD repair, recovery takes longer. Your surgeon will tell you when to resume activity.



You may be told to bend and straighten your arm a few times each day.

## Arthroscopy of the Shoulder

Arthroscopy is used to find and treat many shoulder problems. These include rotator cuff problems, instability, and arthritis.

## The Healthy Shoulder

The shoulder is a very mobile joint. It is linked to the body by the clavicle (collarbone). Ligaments and the acromion form the top of the joint. The head of the humerus bone fits into the glenoid (a socket). Rotator cuff muscles and tendons allow for joint movement. The capsule is a pocket that keeps the joint from moving too far. It is attached to the labrum (a rim of cartilage). A bursa (lubricating sac) helps the joint move smoothly.

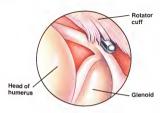
#### Right Shoulder



## Common Shoulder Problems

#### Rotator Cuff Problems

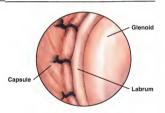
The acromion can pinch (impinge) the bursa and rotator cuff when the arm is raised overhead. This can cause pain, swelling, or even a tear. To free up space in the joint, your surgeon can remove the bursa, cut a ligament, and shave the acromion. A tear can be shaved or repaired.



A tear in the rotator cuff is shaved.

#### Instability

If your shoulder is forced beyond its range of motion, your humerus can shift from its usual position. This is called **instability**. This problem can involve either a loose capsule or a torn labrum, sometimes both. The surgeon's goal is to reattach the torn tissue. A loose capsule can be tightened, and a torn labrum can be reattached to the glenoid.



A loose capsule is tightened

#### Arthritis

Arthritis is a roughening of the joint surface caused by cartilage wear. It often involves loose bodies, fragments of bone or cartilage that have chipped off inside the joint. Your surgeon will smooth worn cartilage from the joint and remove loose bodies. Treatment can reduce your pain.



Rough surfaces in an arthritic shoulder joint are smoothed.

## After Arthroscopy

At home, follow your surgeon's guidelines for healing:

- Ice your shoulder to reduce swelling.
- Rest your shoulder by keeping your arm in a sling.
- When you shower, cover your arm with plastic to keep it dry.
- · Take pain medication as directed.

#### The Road to Recovery

After surgery, your joint may be swollen, painful, and stiff. Recovery times vary, depending on what was done. With a shaved rotator cuff, you may be told to move your arm soon after surgery to prevent stiffness. With rotator cuff repair, or treatment for instability or arthritis, your surgeon will tell you when to resume movement.



You may be told to do daily "pendulum swings" to improve your joint's flexibility. Use your torso to move your arm in a circle, first in one direction, then the other.

## Your Surgical Checklist

☑Use the checklist below to help remind you what to do before and after arthroscopy. Ask your healthcare provider to check the boxes that apply to you.

## Before Surgery

- See your surgeon. Have any tests that your surgeon orders.
- Stop taking aspirin and other anti-inflammatory medication days before surgery.
- ☐ If you smoke, now is a good time to stop. This will reduce the risk of surgical complications.
- Do not eat or drink anything for hours before surgery.
- Arrange for someone to drive you home from surgery.

## **After Surgery**

- Schedule your first follow-up visit for \_\_\_\_\_ days after surgery.
- ☐ Take care of your incision and bathe as directed.
- Complete your physical therapy program if one is prescribed.
- ☐ Ask your surgeon to list which activities you can do right away:

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